

## CLAIMS

1           1. An ozone generation method characterized in that  
2 oxygen gas including moisture of 0.05 - 40 ppm is supplied to  
3 an ozonizer of an electric discharge type as source gas for ozone  
4 generation.

1           2. An ozone generation method characterized in that  
2 moisture is added to oxygen gas when the oxygen gas is supplied  
3 to an ozonizer of an electric discharge type as source gas for  
4 ozone generation.

1           3. An ozone generation method as claimed in Claim 2,  
2 wherein the moisture is added to the oxygen gas so that the moisture  
3 volume in the oxygen gas supplied to the ozonizer is within the  
4 range of 0.05 - 40 ppm.

1           4. An ozone generation method as claimed in Claims 1 or  
2 2, wherein the oxygen gas used has a high purity of at least  
3 99.9%.

1           5. An ozone generation method as claimed in Claims 1 or  
2 2, wherein ozone gas generated by the ozonizer is used for the  
3 manufacturing of a semiconductor.

1           6. An ozone generation method as claimed in Claims 1 or

2 2, wherein ozone gas generated by the ozonizer has a high density  
3 of at least 60 g/Nm<sup>3</sup>.

1 7. An ozone generation apparatus characterized in  
2 comprising:

3 an ozonizer of an electric discharge type;

4 a gas supply system, the gas supply system supplying an  
5 ozonizer with source gas; and

6 a moisture adjusting device interposed in the gas supply  
7 system, the moisture adjusting device adjusting moisture volume  
8 in the source gas.

1 8. An ozone generation apparatus as claimed in Claim 7,  
2 wherein the moisture adjusting device is a humidifier, the  
3 humidifier adding the moisture to the source gas.

1 9. Source gas for ozone generation made of oxygen gas  
2 including moisture of 0.05 - 40 ppm.

1 10. A humidifier for adding moisture to oxygen gas  
2 supplied to an ozonizer of an electric discharge type as source  
3 gas for ozone generation, characterized in comprising:

4 a water tank containing pure water; and

5 a resin tube dipped in the pure water in the water tank,  
6 the resin tube distributing the oxygen gas therein.

1           11. A humidifier as claimed in Claim 10, wherein the resin  
2 tube has moisture permeability.

1           12. A humidifier as claimed in Claim 10, wherein a heater  
2 is provided, the heater controlling a temperature of the pure  
3 water in the vessel.

1           13. A humidifier as claimed in Claim 10, wherein an  
2 agitator is provided, the agitator agitating the pure water in  
3 the vessel.

1           14. A humidifier for adding moisture to oxygen gas  
2 supplied to an ozonizer of an electric discharge type as source  
3 gas for ozone generation, characterized in comprising:

4           a tube assembly comprised of a plurality of resin tubes  
5 bound together; and

6           a vessel containing pure water together with the tube  
7 assembly.

1           15. A humidifier as claimed in Claim 14, characterized  
2 in that the tube assembly has an entire length longer than an  
3 entire length of the vessel and is contained in the vessel in  
4 a bending and meandering state.

1           16. A humidifier as claimed in Claim 14, wherein the vessel  
2 is configured to distribute the pure water therein.

1           17. A humidifier for adding moisture to oxygen gas  
2 supplied to an ozonizer of an electric discharge type as source  
3 gas for ozone generation, characterized in comprising,  
4           a means for adding pure water to the oxygen gas distributed  
5 through a pipe.

1           18. A humidifier for adding moisture to oxygen gas  
2 supplied to an ozonizer of an electric discharge type as source  
3 gas for ozone generation, characterized in comprising;  
4           a vessel for containing pure water;  
5           a means for distributing the oxygen gas into the pure water  
6 or a space in the vessel.